

Born Accessible: Beyond raising awareness

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This paper identifies and examines the EU policies which relate to accessing ICT media content, specifically for broadcast. It comes in response to funding dedicated by the EU to issues of research and training for Media Accessibility. This paper works in the direction of the Digital Single Market aim of 'empowering and including every citizen, strengthening the potential of every business and meeting global challenges with our core values.' Given the fact that Europe is united in diversity of cultures, languages and citizens, media accessibility is indeed a powerful arm towards achieving this inclusive Digital Europe. This policy framework aims at setting out measures beyond 'raising awareness' to align efforts at European, national and regional level. In partnership between the private and the public sector, the aim is to mobilise resources to achieve an ecosystem of excellence along the entire value chain. It proposes to depart from research and innovation, and to create the right incentives to accelerate the adoption of solutions for integrating accessibility as a prerequisite in all public procurement, including funding, research and innovation ICT calls.

This paper is divided into two parts.

1. The first part provides some background regarding legislation and standardization in Europe for media accessibility.
2. The second part identifies a key concept 'born accessible' as an approach towards successful integration of accessibility in any digital development, system or process as a prerequisite.

Through existing funding in the area of accessibility in broadcasting and web accessibility in the past 10 years the EU "born accessible" culture is moving to the foreground. The EU legal framework regarding accessibility is set, still new information and technologies develop. It is expected that this document will help to reflect appropriate and relevant policy directions.

1. EU legal and standardization background

The United Nations is leading the quest for fairness and equal opportunities that embraces human diversity to ensure that everybody can exercise their freedom of expression and to fully participate in the Information Society. To this aim two treaties have been developed in the 21st

century towards fulfilling universal human rights and promoting fundamental freedoms. The UN International Covenant on Civil and Political Rights [ICCPR](#) (1996) is the first. Its deployment guarantees access to any place or service intended for use by the general public. Denial of access constitutes a discriminatory act, regardless whether the perpetrator is a public or private entity. The right of access was further developed as a Human Right by the UN in the Convention on the Rights of Persons with Disabilities [CRPD](#) in 2006. These two UN conventions set up the background from where to develop concrete measures by both the EU and all its countries who ratified the Conventions and the Optional Protocol.

In Europe the response came with the EC Directive [2006/54/EC](#) of the principle of equal opportunities and equal treatment of men and women in matters of employment and occupation. Provisions are described among: individuals, of opportunities for education, training, employment, career development and the exercise of power without their being disadvantaged on the basis of their disability, sex, race, language, religion, economic or family situation, etc.

This Directive was followed by the Commission standardisation mandate [M/473](#) in 2010.

Each individual user has their own profile of needs, characteristics, capabilities, and preferences. This fact needs to be taken into account when developing mainstream products and services. In particular, to ensure access for persons with disabilities on equal basis with others accessibility of products and services is essential. A Design for All approach acknowledges these variations and aims at meeting their requirements to the greatest extent possible in order to achieve accessible products and services.

The answer to the mandate was the recently published European Standard [EN 17161](#) (2019) 'Design for All - Accessibility following a Design for All approach in products, goods and services - Extending the range of users'. This European standard specifies requirements to design, develop and provide products, goods and services that can be accessed, understood and used by the widest range of users including persons with disabilities. This is the background from where to develop any accessibility service in the 21st century aiming at inclusion, personalization, and all members of society.

The EU responded to the UN CRPD with specific legislation regarding accessibility. In 2019 the [European Accessibility Act](#) was approved, which along the [2016 Web Accessibility Directive](#), the [2018 European Electronic Communication Code](#) and the [2018 Audiovisual Media Services Directive](#), offer the legal context for accessibility in Europe in the foreseeable future. In addition to the European Standard EN17161 there is also a harmonised EU standard for accessible technologies: the [EN301549](#) (version 3.1.1.: 2019). Accordingly, on the one hand we have a fully displayed ambitious legislation towards Human Right compliance in Europe, and on the

other hand we have an ever-evolving media landscape which must become accessible to fulfil the EU standards EN301549 and EN17161. These two EN standards secure the concepts of Universal Design, and also Born Accessible.

2. Born Accessible

Europe's wealth lies in its diversity: languages, cultures and democracies - compared to larger and more powerful developed nations, such as the US and China. This diversity, democracy and respect for Human Rights should continue, being a driver on the European media research and innovation landscape. Until now, the EC has had an active policy of developing media accessibility solutions from the onset of the technology and as part of the [Digital Agenda for Europe](#) (DAE). Accessibility was the object of research and innovation and funding calls have been drafted to this aim. The project [DTV4ALL](#) (2009) took care of developing accessibility solutions to meet Europe's needs and expectations for the transition from analog to digital TV. The same approach was taken when the HbbTV standard was developed, and the project [HBB4ALL](#) (2015) was funded. In both cases --DTV4ALL and HBB4ALL-- showed EU pledge to UN treaties applied to a world region where digital development is uneven given its complex background in terms of cultures and languages, and also in language combination from the few monolingual countries, to the average multilingual country where different linguistic policies coexist. Two examples are the UK where the BBC has a channel for Welsh, or Spain with six official languages approved in the Constitution: Basque, Castilian, Catalan, Galician, Spanish Sign Language and Catalan Sign Language. Communication is at the heart of human interaction and in Europe to the wealth of languages we have the added layer of translation solutions: subtitles, dubbing and voice over – which all have a direct impact on the accessibility modality: subtitles for the Deaf and hard of hearing, audio description, spoken subtitles and sign language interpretation.

Providing cutting-edge technology to all people is essential and promotes inclusion - an important social policy in Europe where "united in diversity" is the official motto. The next identified challenge is to make the best use of technology for reaching out to new audiences, adapting to the digital era and thriving in the connected Digital Single Market. The ICT19-2017 Innovation Actions – Media and Content Convergence was opened towards facilitating the convergence process and to enable the interaction with content on any device, anywhere, anytime in a multiplatform scenario. Three projects were funded to this aim focusing in user interaction ([EasyTV](#)), Sign Language Communication ([Content4All](#)) and the new immersive environment media format ([ImAc](#)). Results from these three funded projects show the endless possibilities towards development of advanced personalised audio-visual services. Results will

work towards a successful European media and content industry, sustaining a participatory, pluralistic and diverse European media landscape.

The DTV4ALL (2009) project showed the accessibility roadmap in Europe where the pulling force of legislation was a foundation block. The effort of raising awareness is now moving towards normalisation. We are now at that second stage, where accessibility should move from being the object of study towards becoming a prerequisite in all development, with two important features: departing from the user needs and at the design stage of any process. Europe is now ready in terms of policy, standardisation, and basic solutions towards deploying an accessible media landscape. Media accessibility is now ready to move from being an object of study to become a prerequisite as any Health and Safety requirement. As always, Europe is there to back up this concept with the newly funded COST ACTION Lead-me: Leading Platform for European Citizens, Industries, Academia and Policymakers in Media Accessibility (CA19142). The action will focus in the next four years in six areas:

1. The new EU legislation will trigger accessibility services deployment across Europe.
2. From the previous premise, minority languages will develop language technologies and automation.
3. Sound and audio are going through a change with spatial properties and object audio-based production.
4. Accessibility services will change the workflow to web-based.
5. Artificial Intelligence (AI) and Deep Learning will be applied to accessibility services.
6. Terminology shift from disability to ability, from impairments to competences leading to a widening scope for participatory end-users: the aged, refugees, but also tourists, etc.

The COST ACTION was initiated by the three ICT funded projects (EasyTV), Sign Language Communication (Content4All), and the new immersive environment media format (ImAc). Results from the three projects can be applied to any media platform and any environment from videogames, TV, immersive environments in any EU language and language situation. Their developments lead to the need of including accessibility across ICT funding calls related to media not as an object of study, but as a prerequisite from where any design has to depart towards a fully inclusive Europe.

Conclusion

The concept of Born Accessible follows closely EU legislation, and has been proven to be successfully integrated in R&D activities and developments. While in the past accessibility was by itself the object of R&D and was in the stage of raising awareness it is now high time to

move to the next stage. It is now the time to treat accessibility in the same conditions as Health and Safety issues: from the very onset and in all industrial areas.

In the case of H2020/EUROPE funding this would mean accessibility has to be a prerequisite, taking into consideration people with disabilities and people at the risk of exclusion as end users and user centric methodology as the approach, as it has already been included in existing H2020 projects such as [REBUILD](#), [SOCLOSE](#), or [TRACTION](#). Europe already has secured policy options for a future EU accessibility regulatory framework. National EU countries must determine now the types of legal requirements that would apply to relevant actors. Now is the time to act. A good example where to act will be in the establishment of EU Smart Accessible Cities, Smart Accessible Transport, or in the development of the EU AI framework as established in the White Paper [On Artificial Intelligence - A European approach to excellence and trust](#). The essential promotion of Born Accessible can have a significant role in achieving the Sustainable Development Goals, and supporting the full democratic participation of all people living in EU while protecting their social rights.



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